

What is claimed is:

1. An apparatus supporting an acquisition of a received
5 code modulated signal by determining the correlation
between said received code modulated signal and an
available replica code sequence at different code
phases relative to each other, said apparatus
comprising:
10 a first acquisition engine for selecting code
phases which are good candidates for being the code
phase at which a received code modulated signal and
an available replica code sequence have the highest
correlation, and for outputting information on each
15 selected code phase; and
a second acquisition engine for receiving
information on selected code phases from said first
acquisition engine and for performing a refined
comparison between a received code modulated signal
20 and an available replica code sequence for each
selected code phase on which information is received.
2. An apparatus according to claim 1, wherein said first
acquisition engine is adapted to select said code
25 phases as part of a respectively selected set of a
code phase and a frequency employed for a frequency
compensation of said received code modulated signal,
said first acquisition engine providing information
on each selected set, and wherein said second
30 acquisition engine is adapted to perform said refined
comparison between a received code modulated signal
and an available replica code sequence for the code
phase of each set on which information is received
and with a frequency compensation of said received

code modulated signal using the frequency belonging to the respective set.

3. An apparatus according to claim 2, wherein for
5 selecting a specific set comprising a given code-phase and a given frequency, said first acquisition engine is adapted to
multiply said received code modulated signal with
a sinusoidal signal having said given frequency;
10 align said received code modulated signal with
said replica code sequence at said given code-phase;
multiply selected samples of said received code
modulated signal with aligned samples of said replica
code sequence;
15 perform an integration of the results of the
second multiplication; and
select said set comprising said given code-phase
and said given frequency in case the result of said
integration exceeds a predetermined threshold value.
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4. An apparatus according to claim 3, wherein said first
acquisition engine is adapted to perform said
integration at least as one of a coherent and a non-
coherent integration of said results of said second
25 multiplication.
5. An apparatus according to claim 3, wherein for said
refined comparison, said second acquisition engine is
adapted to
30 align said received code modulated signal with
said replica code sequence at a code-phase belonging
to a selected set on which information is received;

multiply selected samples of said received code modulated signal with aligned samples of said replica code sequence;

5 multiply the multiplication result with a sinusoidal signal which has a frequency belonging to said selected set; and

perform an integration of the results of said second multiplication.

10 6. An apparatus according to claim 5, wherein said second acquisition engine is adapted to performs said integration as at least one of a coherent and a non-coherent integration.

15 7. An apparatus according to claim 5, wherein said first acquisition engine is further adapted to provide the result of an integration, which is associated in said selection to a selected set, to said second acquisition engine, and wherein said second
20 acquisition engine is adapted to perform said integration for said refined comparison taking into account an integration result provided by said first acquisition engine.

25 8. An apparatus according to claim 5, further comprising a processing unit for processing integration results determined by said second acquisition engine, in order to acquire a received code modulated signal.

30 9. An apparatus according to claim 5, further comprising a processing unit for processing integration results determined by said first acquisition engine, which integration results are associated to a selected set, and integration results determined by said second

acquisition engine, in order to acquire a received code modulated signal.

10. A system comprising a network and an apparatus, which
5 network and which apparatus support an acquisition of
a code modulated signal received at said apparatus by
determining the correlation between said received
code modulated signal and an available replica code
sequence at different code phases relative to each
10 other, wherein said network and said apparatus are
adapted to exchange data with each other, said
apparatus comprising:

a first acquisition engine for selecting code
phases which are good candidates for being the code
15 phase at which a received code modulated signal and
an available replica code sequence have the highest
correlation, and for outputting information on each
selected code phase; and

a second acquisition engine for receiving
20 information on selected code phases from said first
acquisition engine and for performing a refined
comparison between a received code modulated signal
and an available replica code sequence for each
selected code phase on which information is received.

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11. A system according to claim 10, wherein said network
comprises a processing unit for processing at least
results of said refined comparison in said second
acquisition engine in order to acquire a received
30 code modulated signal.

12. A system according to claim 10, wherein said network
is adapted to provide assistance data related to
received code modulated signal to said apparatus,

which assistance data supports said second acquisition engine in said refined comparison.

13. A method for supporting an acquisition of a received
5 code modulated signal by determining the correlation between said received code modulated signal and an available replica code sequence at different code phases relative to each other, said method comprising:
- 10 selecting code phases which are good candidates for being the code phase at which a received code modulated signal and an available replica code sequence have the highest correlation; and
- 15 performing a refined comparison between said received code modulated signal and said available replica code sequence for each of said selected code phases.
14. A method according to claim 13, wherein selecting
20 said code phases comprises selecting a respective set of said code phase and a frequency employed for a frequency compensation of said received code modulated signal, and wherein performing said refined comparison comprises comparing said received code
25 modulated signal and said available replica code sequence for the code phase of each selected set and with a frequency compensation of said received code modulated signal using the frequency belonging to the respective set.
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15. A method according to claim 14, wherein selecting a specific set with a given code-phase and a given frequency comprises

- multiplying said received code modulated signal
with a sinusoidal signal having said given frequency;
aligning said received code modulated signal with
said replica code sequence at said given code-phase;
5 multiplying selected samples of said received code
modulated signal with aligned samples of said replica
code sequence;
performing an integration of the results of said
second multiplication; and
10 selecting said set with said given code-phase and
said given frequency in case the result of said
integration exceeds a predetermined threshold value.
16. A method according to claim 15, wherein said
15 integration of said results of said second
multiplication is at least as one of a coherent and a
non-coherent integration.
17. A method according to claim 15, wherein performing
20 said refined comparison comprises:
aligning said received code modulated signal with
said replica code sequence at a code-phase belonging
to a selected set;
multiplying selected samples of said received code
25 modulated signal with aligned samples of said replica
code sequence;
multiplying the multiplication result with a
sinusoidal signal which has a frequency belonging to
said selected set; and
30 performing an integration of the results of said
second multiplication.

18. A method according to claim 17, wherein said integration for said refined comparison is at least one of a coherent and a non-coherent integration.
- 5 19. A method according to claim 17, wherein performing an integration of the results of said second multiplication in said refined comparison comprises taking into account integration result occurring in said selection of said selected set.
- 10 20. A method according to claim 19, wherein integration results occurring in said refined comparison are further processed in a processing unit in order to acquire a received code modulated signal.
- 15 21. A method according to claim 17, wherein integration results associated to a selected set in said selection of sets and integration results occurring in said refined comparison are further processed in a
- 20 processing unit in order to acquire a received code modulated signal.